

Remarks

In view of the above amendments and the following remarks, favorable reconsideration of the outstanding office action is respectfully requested.

Attached hereto is a page entitled "Version of Markings to Show Changes Made."

Claims 10, 12-17 and 19-22 remain in this application. Claims 12-17 and 19 have been amended. No new claims have been added. Claims 1-9 have been previously withdrawn from consideration, without prejudice. Claims 11 and 18 have been previously cancelled.

1. Drawings

Six (6) sheets formal drawings and Letter to the Official Draftsperson were submitted in the last office action response. **Applicant's attorney respectfully requests Examiner's to indicate whether those drawings are acceptable.**

2. Election/Restriction

Applicants previously affirmed the election to prosecute the invention of Group I, claims 10-22. As such, claims 1-9 are withdrawn from issue. Examiner has not indicated on the Form PTO-326 that claims 1-9 are still pending.

3. Claims Objections

Claim 13 and 14 have been rewritten in independent form to include the limitations of claim 10. Applicant's thank Examiner for the indication of allowability of claims 3 and 14.

4. Claims Objections

Claim 15 and 16 are objected to as being in improper independent form. Claims 15-16 are drawn to a system and fail to further limit the base claim. This was an obvious error in the claims' preamble which has now been corrected. As amended, claims 15-16 are now directed to a method step which further limits the heating step of claim 10. As such, the objection should be withdrawn. Applicant's attorney respectfully requests reconsideration of the withdrawal of claims 15-16 from further consideration.

5. § 112 Rejections

The Examiner has rejected claims 17 and 19 under 35 U.S.C. § 112, first paragraph, as containing subject matter which is not described in the specification. Claim 17 is amended to include the language that clarifies the ratio, i.e., that the ratio is after the tip is made, as is indicated to be allowable by Examiner. As such, it is believed that the 112, first para. rejection of claim 17 should be withdrawn. Regarding claim 12, the term “surrounding” is deleted and replaced with “heating.” Accordingly, the rejection of claim 12 should be withdrawn.

6. Rejections

Claims 10, 12 and 21-22 are rejected under 35 USC 103(a) as being unpatentable over Humbert 5,970,750.

This rejection is flawed and should be withdrawn for the following reasons. In response to the arguments put forth by Examiner concerning the motivation for selecting Humbert, the fact that Humbert is directed to an entirely different problem is very relevant. It is relevant because one of ordinary skill in the art would not look to Humbert to solve a problem of off-line pregobbing, i.e., where a gob is dropped from a preform in a different furnace than the draw furnace. Humbert discloses a method for surface treating a preform in a lathe with a plasma torch. At the end of the process, the end of the soot preform is removed by a separation step. Thus, Humbert is not reasonably pertinent to the claimed invention and is therefore non-analogous art.

Further, nothing in Humbert teaches or suggests that the tip-shape should be pre-optimized, or that the temperature profile of the pregobbing apparatus should be substantially identical to that of the draw furnace. Moreover, the Humbert device is a “lathe” not a furnace. A person of ordinary skill in the art recognizes the difference between them. Thus, the rationale is just this: a furnace is an intensely hot enclosed place (see Webster’s II, New World dictionary). A person of ordinary skill would not call a “lathe” a “furnace” as it is not an intensely hot enclosed space. Examiner’s construction of this common term is improper. Notably, just because one could distort a term to potentially mean something is not relevant to the determination of obviousness, the common meaning of the term is what is important in rendering the obviousness determination.

Moreover, what Humbert shows is a blunt tip shape. The Humbert tip is by no means “pre-optimized” as defined in the specification (see page 6, lines 19-22). In fact, given the approximate blunt tip shape shown in Humbert, one would encounter significant draw

downtime before the tip could become of the shape where fiber may be drawn therefrom. This is exactly the problem that Applicant's invention has addressed, that is, providing a pre-optimized tip shape such that draw down time is minimized. Thus, the practice of Humbert would frustrate the purpose of the present invention. Frustration of the purpose of the invention is strong indicia of nonobviousness.

Regarding the term profile, Examiner has again distorted this term to mean most anything. A person of ordinary skill in the art knows what a temperature profile of a furnace is. Likewise, such person would recognize when a heating furnace and draw furnace having a substantially identical profile. It is asserted that Examiner's construction of the term "profile" does not comport with common usage. Again, this is improper.

Further, as amended, the heating furnace in claim 10 must include a chamber. Calling the room a chamber is improper. Since the chamber of a furnace must be intensely hot, calling a room a chamber is a distortion of its common meaning. As such this limitation is not met by Humbert.

None of the above meaningful limitations are taught or suggested by Humbert. As such, Claim 10 is not rendered obvious by Humbert and Applicant's request withdrawal of the §103 rejection thereof. Claims 12-17, 19 and 20 are allowable for at least these reasons.

Claim 21 are allowable because there is no teaching or suggestion in Humbert to provide a plurality of pregobbing apparatus having heating furnace with a first temperature profile substantially equal to the second profile of the draw furnace and wherein a pre-optimized shape preform tip is provided. First, Humbert teach a lathe, not a furnace. Respectfully also, Examiner is taking too broad of a view of the term pre-optimized tip shape. The tip shape can't be pre-optimized as shown in Humbert as fiber cannot be drawn therefrom until the shape changes to a "tapered shape" otherwise, the benefits of the invention, i.e., fiber draw time cannot be reduced. Thus, as described on page 6, line 12-16 the tip cannot be pre-optimized unless the time to commence draw can be dramatically reduced. Also, as described in page 6, line 16-17, the tip must be formed to the proper shape with most or all of the trash glass removed. Examples of ratios of 5-12 are give by way of preferred dimensions. Further evidence is shown in Fig. 3 which describes an un-pregobbed shape. Humbert shows a shape even more blunt than that of the un-pregobbed shape. Neither of the requirements to be considered "pre-optimized" nor the preferred dimensions are met by Humbert. Thus, Humbert is clearly not a "pre-optimized" tip shape. Therefore, claim 21 is allowable as drafted. Claim 22 is allowable for at least the above reasons.

7. Previously Submitted References

Applicants have now submitted several cited references. Because Examiner has not provided initialed PTO-1449 forms, Applicants request withdrawal of the final rejection until Examiner can provide an indication that the references have been considered. **Applicants request Examiner to initial same and return with the next office communication thereby indicating that they have been considered.**

8. Conclusion

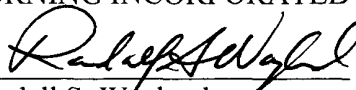
Based upon the above amendments, remarks, and papers of record, Applicant believes the pending claims of the above-captioned application are in allowable form and patentable over the prior art of record. Applicant respectfully requests reconsideration of the pending claims 10, 12-17 and 19- 22 and a prompt Notice of Allowance thereon.

Applicant believes that a one month extension of time is necessary to make this Response timely. Should Applicant be in error, Applicant respectfully requests that the Office grant such time extension pursuant to 37 C.F.R. § 1.136(a) as necessary to make this Reply timely, and hereby authorizes the Office to charge any necessary fee or surcharge with respect to said time extension to the deposit account of the undersigned firm of attorneys, Deposit Account 03-3325.

Please direct any questions or comments to Randall S. Wayland at (607) 974-0463.

Respectfully submitted,

CORNING INCORPORATED



Randall S. Wayland
Registration No. 36,303
Corning Incorporated
Patent Department
Mail Stop SP-TI-03-1
Corning, NY 14831

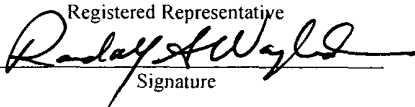
Date: 2/4/03

CERTIFICATE OF MAILING UNDER 37 C.F.R. § 1.8: I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to Asst. Commissioner of Patents and Trademarks, Washington, D.C. 20231 on

2/4/03
Date of Deposit

Randall S. Wayland

Name of applicant, assignee, or
Registered Representative


Signature

VERSION OF MARKINGS TO SHOW CHANGES MADE

In the Claims

Please amend the claims as follows:

(Twice Amended) 12. The method of claim 10 wherein the step of heating is accomplished by at least one induction coil **[surrounding]** heating the preform.

(Twice Amended) 13. A method for manufacturing an optical fiber preform, comprising the steps of:

a) heating a consolidated optical fiber preform within a chamber of a heating furnace having a first temperature profile to allow a gob to drop under the influence of heat and gravity,

d) removing additional glass from the preform in the heating furnace until a draw tip having a pre-optimized tip shape is formed [The method of claim 10] wherein the pre-optimized tip shape includes a tip taper having a ratio, defined as tip length divided by radius change over the tip length, of between about 5 to about 12, and

e) transferring the preform to a draw furnace of a draw apparatus wherein a second temperature profile within the draw furnace is substantially identical to the first temperature profile.

(Twice Amended) 14. A method for manufacturing an optical fiber preform, comprising the steps of:

a) heating a consolidated optical fiber preform within a chamber of a heating furnace having a first temperature profile to allow a gob to drop under the influence of heat and gravity,

c) removing additional glass from the preform in the heating furnace until a draw tip having a pre-optimized tip shape is formed [The method of claim 10] wherein the pre-optimized tip shape includes a tip taper having a ratio, defined as tip length divided by radius change over the tip length, of between about 6 to about 9, and

c) transferring the preform to a draw furnace of a draw apparatus wherein a second temperature profile within the draw furnace is substantially identical to the first temperature profile.

(Twice Amended) 15. The **[system]** method of Claim 10 wherein the step of heating includes heating the heating furnace **[includes]** to a temperature between about 1800 °C and 2000 °C.

(Twice Amended) 16. The **[system]** method of Claim 10 wherein the step of heating includes heating the heating furnace **[includes]** to a temperature between about 1900 °C and 1950 °C.

(Twice Amended) 17. A method of making an optical fiber preform, comprising the steps of:
prior to drawing optical fiber from the preform in a draw furnace, heating a tip of the preform in a pregobbing heating furnace separate from the draw furnace to form a pre-optimized draw tip on the preform, said pre-optimized draw tip after being formed having a tip taper with a ratio, defined as tip length divided by radius change over the tip length, of between about 5 to about 12, and causing a temperature profile of the pregobbing furnace to be substantially equal to a temperature profile of the draw furnace.

(Twice Amended) 19. The method of claim 17 wherein the pre-optimized draw tip after being formed includes a tip taper having a ratio, defined as tip length divided by radius change across the tip length, of between about 6 to about 9.